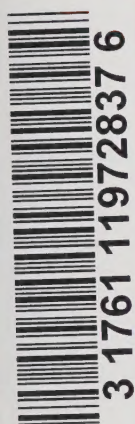


Fitness Questions and Answers

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Fitness Ontario En forme

What is physical fitness?

Physical fitness is a concept which is difficult to define, although Dr. Harrison Clark, a noted physical educator, probably said it best:

“Physical fitness is the ability to carry out daily tasks with vigour and alertness, without undue fatigue, and with ample energy to enjoy leisure-time pursuits and meet unforeseen emergencies. Thus, physical fitness is the ability to last, bear up, to withstand stress, and to persevere under difficult circumstances where an unfit person would not”. The rewards are the satisfaction of being active, the “afterglow” that results from the physical activity, and the health benefits.

Do I need to exercise?

If you want to be fit, you do. And being fit is immensely pleasurable and exhilarating. Fitness Ontario's pamphlet “Fitness for the Fun of It” describes it pretty well—“Being fit is like holding the high cards up your sleeve. It gives you a reserve of energy that's ready to use at the end of the day. It's this extra energy reserve that allows you to do the things you enjoy—shopping, dancing, skating, partying, participating in a game or just simply playing for a while with the children.” You'll find you can meet the challenges of the day much more easily. You'll discover you have more drive, increased energy, a feeling of well-being, increased productivity, reduced stress and better sleep patterns. That's why you do need to exercise.



Should I see my doctor before beginning an exercise program?

Basically it's a question of common sense. If you're out of condition, due to a lack of any regular exercise program, then it would probably be wise to check with your family physician. In any event you should answer the following questions from the Physical Activity Readiness Questionnaire, and if you answer yes to any one of them, you should certainly see your physician:

- 1.** Do you often feel faint or have spells of severe dizziness?
- 2.** Do you frequently have pains in your heart or chest?
- 3.** Has your doctor ever said you have heart trouble?
- 4.** Has a doctor ever said your blood pressure is too high?
- 5.** Has your doctor ever told you that you have a bone or joint problem such as arthritis? This could be aggravated by exercise.
- 6.** Is there a good physical reason not mentioned here why you should not follow an activity program?
- 7.** Are you over 65 and not accustomed to vigorous exercise?



Should I exercise everyday?

Yes. We would recommend you be active everyday. If you are a beginner, the first six weeks should involve light activity—such as brisk walking, hiking, swimming, doubles badminton, doubles tennis, or cycling. The light activity should be pursued for about an hour a day. You could continue these light activities into the future and if you are over 55 we recommend you do so. If you are under 55, you might wish to pursue more vigorous activities like jogging and folk dancing or games like singles badminton, singles tennis, squash, basketball, soccer, field hockey. For those under 55, vigorous activities may be of more benefit in preventing heart disease. The lighter activities, while perhaps not of the same magnitude, are also beneficial.

Should I warm-up and warm-down before and after an activity?

Abrupt changes are not recommended. Your heart needs a few minutes to adjust to the exercise. If the exercise is very demanding the heart may not react quickly enough. This can put more strain on the heart muscle than is good for it. Also, an abrupt movement can tear or strain muscle tissue and tendons. A warm-up will stretch the muscles and lessen the chance of injury. The warm-down will prevent dizziness as a result of blood suddenly pooling in the legs. For a warm-up and warm-down we recommend a very slow jog for 2-3 minutes. If it is a game such as racquetball, simply hit the ball and move about at an easy jogging pace with some gentle stretching to retrieve and hit the ball for about 3 minutes. Walk about after the game.

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Is there danger in exercising too vigorously?

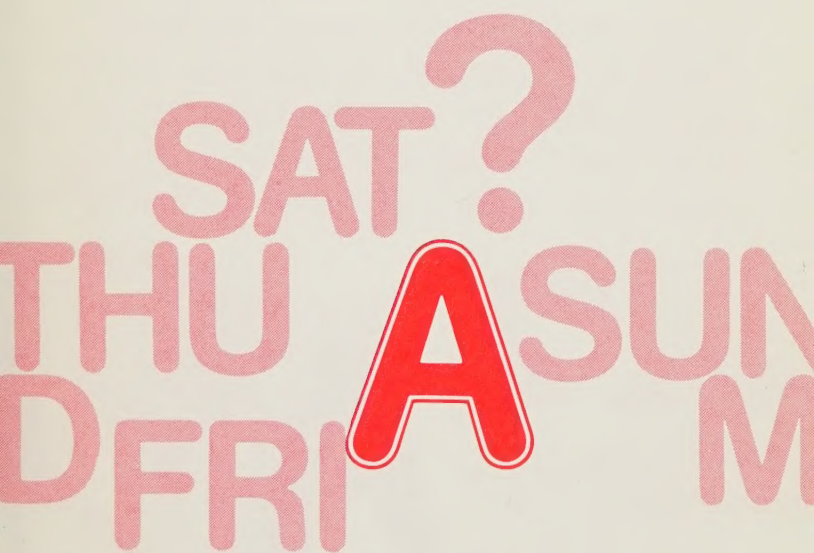
We recommend you do not overexert yourself—especially if you have been inactive for some time. You should *always be capable of talking while exercising*. If you find you can't talk, you're overdoing it. Slow down. In addition, you should not be exercising so vigorously that you make “wheezing” sounds.

Should I vary my exercise program from day to day?

We recommend that you change your activities to prevent boredom and muscle-joint injury. We also suggest that if you are vigorously active in a jogging program or squash program, you do some light activity every other day.

How many days must I be active before I experience any change in my performance?

In 14 days, if not sooner, you will begin to notice an improvement in your ability to perform physical activity. If you've been avoiding stairs (which you should never do) you'll notice that you'll not be breathing heavily after two or three weeks of climbing 2 to 3 flights. Saving hydro energy improves your energy!



Should I exercise alone or with others!

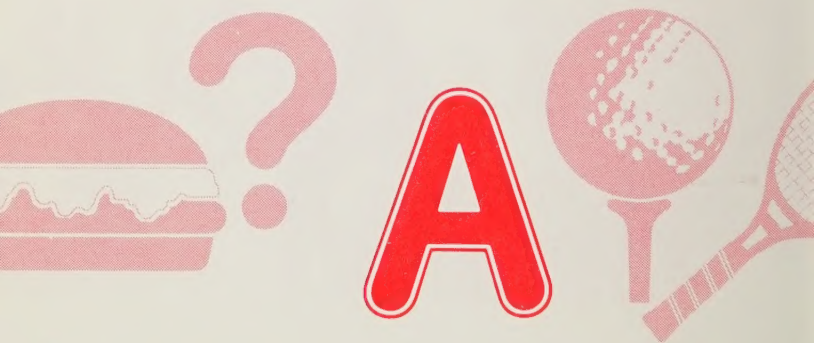
It's entirely up to the individual. Some people exercise alone; others enjoy a companion or even a crowd. The important point is that you should have roughly the same endurance span as the person you're exercising with—otherwise one or both of you will become frustrated. To find out your endurance score, take a fitness test. The Ministry of Culture and Recreation operates mobile Fitness Testing Centres through local sponsoring agencies. For more information contact Fitness Ontario, 77 Bloor St. W., Toronto, Ontario.

Can I lose weight by exercising?

One bottle of beer (.36 l. / 12 oz.) has 150 calories. One piece of bread (80 cal.) with marmalade (60 cal.) has 140 calories. A game of golf burns 4 calories per minute and on completion of the game (about 3 hours) you will have burned approximately $4 \times 60 \times 3 = 720$ calories. Squash for 40 minutes will burn approximately 400. You can lose weight by regular exercise. But in order to lose much more weight, you must diet as well. After all, .45 kg. / 1 lb. of fat is approximately equal to 3,500 calories.

Is there any relationship between exercise and stress?

One of the benefits of physical activity is that it's a diversionary activity which relieves boredom and continuous stress. You'll often feel a sense of relaxation after a brisk hike, or a game of badminton or tennis. If you can shower shortly after, this can often help in producing a relaxed state. There is also evidence that the



increase in your endurance through regular physical activity diminishes the intensity of the responses you formerly received from stress situations. The increased endurance provides a certain amount of reserve against other stresses.

What is exercise heart rate and how can it be measured?

During activity, your heart and lungs must work harder to meet the increased demands for energy. Your heart rate is a simple way of determining how effectively your heart is responding to these demands.

Immediately after your exercise, place two fingers along the thumb side of your wrist, or press lightly against the side of your neck. You'll notice a slight pulsing or beating sensation. Count the number of these beats in 10 seconds, and multiply by 6. This will give you the approximate number of heartbeats per minute.

Depending upon your age, the following chart will indicate the upper and lower exercise heart rate levels that are right for you.

Age	Exercise Heart Rate		# of beats in 10 seconds
	Lower Limit	Upper Limit	
20-30	approx. 110 to 150 beats/min.		approx. 18 to 25
31-40	approx. 110 to 138 beats/min.		approx. 18 to 23
41-50	approx. 96 to 126 beats/min.		approx. 16 to 21
51-60	approx. 90 to 114 beats/min.		approx. 15 to 19

If your heart rate immediately after exercising is below the lower limit shown for your age, your activity may not be vigorous enough for cardiovascular improvement. On the other hand, if your heart rate is greater than the upper limit shown for your age, you may be overexerting yourself, and should slow down.



Can I use my heart rate as an indicator of whether the exercise is beneficial or too strenuous?

Yes. Your heart rate is an excellent indicator. For a beginner we would suggest you keep your pulse rate at approximately a 150-minus-your-age level for six weeks. A maximum exercise heart rate would be 200 (beats per minute) minus your age. Another control to ensure that the exercise is not too stressful—you should be capable of talking while being active. Obviously, a fully active lifestyle is more beneficial than a completely inactive one. You can receive benefit from any exercise which increases your heart rate. Gardening, hiking, brisk walking, golf, all will increase your heart rate and are healthy activities. Another goal might be to take up activities that push your heart rate higher (170 minus your age). Activities such as folk dancing, singles badminton, tennis and jogging can do this.

What should I weigh?

A good target weight is one at which you feel comfortable. Ask your doctor what he or she feels would be right for you. Once you have achieved your desired weight, the rule is: eat, drink and be merry, but burn off the excess calories. Eating is one of our major enjoyments. Unfortunately, obesity is one of our major problems in Canada.

Any activity burns calories. Some however, burn more than others. For example, 3 hours of golf burns 720 calories. Whereas 30 minutes of jogging consumes 300 calories.



How should I breathe while exercising?

Breathe naturally. Don't attempt any respiratory gymnastics such as holding your breath or breathing only through your nose. The mouth is a wide hole and the resistance to the flow of air is less than through the nostrils. If you find you are wheezing or unable to carry on a conversation while jogging, slow down. Walk for 1-2 minutes and begin again but don't let yourself get to the "listening only" or "wheezing" stage.

Should women exercise differently than men?

Women can take in all the activities recommended for men. The limiting factors are the same as for men. Have you been active all your life? If not, begin slowly. Muscles and tendons are easy to strain. Turned ankles are common when just starting exercise programs. There is no reason that women cannot compete or participate against men too, if they wish. Activities such as racquet games, swimming, cycling, skiing, etc., can provide a competitive element to activities that already rate highly in fitness value.

Is sweating harmful?

No. It is a good indication of an efficient body system if you sweat profusely. Your body wants to maintain a near normal temperature and sweating while exercising helps keep the temperature from rising too high. That water loss should be replaced, so don't hesitate to have a drink if you are participating on a hot day and/or sweating profusely.



Do saunas, steam baths, or rubberized sweatsuits promote weight loss?

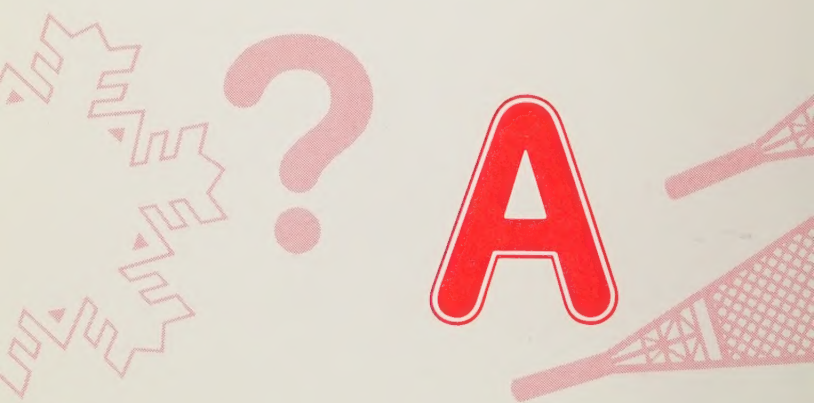
Yes. And no. You do lose weight (water loss) through sweating. However, this is only a temporary loss. Your body will retain more water from the foods and beverages you swallow following the exercise or sauna afterward (see next question) and your weight will return to what it was before sweating.

Should I have a hot sauna or whirlpool after a vigorous game or exercise?

We recommend you warm-down and then cool-down before going into the sauna or whirlpool. The warm water or air keeps the skin blood vessels open and less blood returns for the heart to pump it to the head. Coupled with the inactivity in the sauna or whirlpool as you sit, you can then experience light-headedness or fainting. Obviously, this can be dangerous in a whirlpool.

What time of the day should I exercise?

The only time not to exercise is in the hot noonday sun during the summer months. This hot period puts an additional strain on your body and, for the 2-3 months of the year that we have such a heat exposure, switch to the morning or evening. We also recommend you wait at least an hour after eating.



Should I be active out of doors in the winter?

There is no reason not to be. Skating on the river or cross-country skiing, or jogging can all be performed in the winter. If you find yourself coughing because the climate dries out the tissue in your throat, slow down. This reduces the need for increased breathing, lessens the flow of air and provides time for the tissues to become moistened. If possible, it's a good idea to warm-up indoors before exercising.

Am I too old to get started?

No. Try it. Be active. But remember to complete the Physical Activity Readiness Questionnaire on page two. Bone development, joint flexibility and muscular endurance decrease with lack of use and increase with use. Light activities are highly recommended for those starting an exercise program and for people over 55 years of age. Common sense is the best criterion when choosing your activities. Your degree of participation should not result in overexertion. Set a pace that feels comfortable.

I have a “bad back”! Should I exercise?

If you have any kind of back trouble it's wise to see your family physician before undertaking an exercise program. It is most unlikely, however, that he will suggest you be inactive. Many people with “bad backs” are far more serious about exercising than those who are



problem-free. The pelvic tilt is an essential part of any such exercise program. Lie down on your back, with knees bent and feet flat on the floor. Now tighten abdominal muscles (it isn't necessary to hold your breath), flatten the small of your back against the floor by rolling your hips back; buttocks are raised slightly, but don't push with the feet; all the pull should come from the abdominal muscles. The pelvic tilt is used as a preparatory contraction before all other back exercises. Here is one further exercise. Again, lie on your back, with the knees bent. Now raise your back and shoulders 15-20 cm. /6-8 in. from the floor and then gently lower them again. Repeat 10 to 20 times. Remember that all exercises should be done with ease. Do not force or persist with an exercise that causes increased or continuous pain.

There's been an emphasis on endurance so far. What about strength?

There are other aspects of fitness besides those that affect the heart, respiratory muscles and legs—strength and flexibility, for example. Here are just a few that you can try. Remember to start off at an easy pace, then slowly build up to being more strenuous.

Pushing

The familiar push-up is good for strengthening stomach, as well as arm and shoulder muscles. Try 10 with knees on floor, or 5 with knees off.



Pulling

Simply hanging from an exercise bar helps to strengthen your pulling muscles. For something more demanding, start pulling upward. Stop when you begin to feel strain, and then lower yourself back to a hanging position.

Stomach strength

Strong stomach muscles not only keep your stomach flat and firm, they also help prevent backache by giving good support to the spine. Lie on back with knees bent and feet flat on floor. Pull knees to chest and lower. Do not raise head.

Are swimming and cycling good forms of exercise?

They are good exercises if you monitor your pulse rate and, to begin with, increase it so it reaches the minimum level (170 minus your age) for at least 5 minutes. Then work towards half an hour. Any activity is better than sitting doing nothing. Swimming or riding slowly is splendid. However, they should be combined with other forms of exercise, such as brisk walking, in order to maintain lower body (hip, knee, ankle) development. If you have a joint or muscle injury these exercises are recommended until you're physically back on the ground again.



Is yoga good for flexibility?

Yoga is excellent for flexibility. Accompanied by some endurance activities like folk dancing, jogging, badminton, hiking in the hills or squash, yoga would provide a good program. We don't recommend standing on your head though, due to the stress on neck and spine. Other activities such as gardening or swimming, which make use of many different muscles, are also excellent for maintaining flexibility.

Do my children need exercise?

Yes. They need at least 30 to 60 minutes a day. A good part of this time should be vigorous activity. Make it a family affair. Play with your children. Children mimic adult behaviour, and parents would do their children a favour by setting a good "exercise" example.

Clothing and footwear

Clothing worn should be made up of several layers for winter activities such as cross-country skiing, so that a layer, e.g., a wind-resistant jacket or hat, can be removed when hot and replaced when cool. Summerwear should be light and above all, clothing both in winter and summer should be loose-fitting. Footwear: purchase a good pair of running shoes with a well-cushioned sole and a sturdy heel.

Is there a test I can use to monitor my endurance improvement?

Yes. After a week or so of increased activities, go for a brisk walk or slow jog. Note the distance you can cover with your heart rate at



approximately 170 beats per minute minus your age.

Don't let your heart rate go above this value. Remember you should be capable of talking, and if you feel any discomfort, stop.

After six weeks of further activity, repeat the test, keeping the heart rate at the same level as in the initial test. Once again, note the distance you have covered. You should expect to see a two to threefold increase in the distance you're able to cover.

Where can I go for additional information?

Contact your local Regional Office of the Ministry of Culture and Recreation or Fitness Ontario, The Ministry of Culture and Recreation, 77 Bloor Street West, Second Floor, Toronto, Ontario M7A 2R9. Tel: (416) 965-6312

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